Did You Know?

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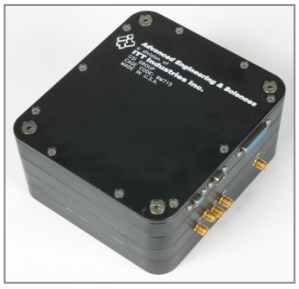
ESTO Technology to Fly on Air Force XSS-11

A new, radiation-tolerant design of a Low-Power Transceiver (LPT) has been selected to fly on the US Air Force's Experimental Satellite System XSS-11. The XSS-11 satellite is set to launch in November of 2004 and will, among other activities, 'mission qualify' the LPT system.

The LPT system is a collection of interchangeable hardware modules that constitute the platform for satellite communication and navigation functions. It can simultaneously transmit and receive signals in multiple radio frequency (RF) bands and process multiple data channels within each band. Its modular design allows for flexibility in signal processing and for varying levels of radiation-tolerance.



The LPT was first flown on the Space Shuttle Columbia (STS-107), but the XSS-11 mission represents the first use of the radiation-tolerant design. The XSS-11 is one of a new class of low-cost, low-weight (< 100 kilograms) micro-satellites developed by the Air Force Research Laboratory (AFRL). The new LPT design also represents a key breakthrough needed for further development of the NASA Earth science sensor web.

The radiation-tolerant LPT design was developed at ITT Industries in Reston, VA, with funding from the Earth Science Technology Office (ESTO). The flight of the LPT on XSS-11 is a partnership among the Space Vehicles Directorate of AFRL, the NASA Headquarters Office of Space Communications, and ESTO.

For more information about NASA Earth science technologies go to http://esto.nasa.gov